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 $\left(2\right)$ The following duty cycle applies for ramped-modal testing:

RMC mode	Time in mode (seconds)	Engine speed ¹³	Torque (percent) 2 3	
1a Steady-state	126	Warm Idle	0.	
1b Transition	20	Linear Transition	Linear Transition.	
2a Steady-state	159	Intermediate Speed	100.	
2b Transition	20	Intermediate Speed	Linear Transition.	
3a Steady-state	160	Intermediate Speed	50.	
3b Transition	20	Intermediate Speed	Linear Transition.	
4a Steady-state	162	Intermediate Speed	75.	
4b Transition	20	Linear Transition	Linear Transition.	
5a Steady-state	246	Maximum Test Speed	100.	
5b Transition	20	Maximum Test Speed	Linear Transition.	
6a Steady-state	164	Maximum Test Speed	10.	
6b Transition	20	Maximum Test Speed	Linear Transition.	
7a Steady-state	248	Maximum Test Speed	75.	
7b Transition	20	Maximum Test Speed	Linear Transition.	
8a Steady-state	247	Maximum Test Speed	50.	
8b Transition	20	Linear Transition	Linear Transition.	
9 Steady-state	128	Warm Idle	0.	

¹ Speed terms are defined in 40 CFR part 1065.

² The percent torque is relative to the maximum torque at the commanded engine speed.

³ Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the current mode to the torque setting of the current mode is a change in speed setting.

APPENDIX V TO PART 1039 [RESERVED] APPENDIX VI TO PART 1039—NONROAD 35 9 COMPRESSION-IGNITION COMPOSITE 36 17 TRANSIENT CYCLE Normalized speed (percent) 1	[69 FR 39213, June 29, 2004, as amended at 73 FR 37241, June 30, 2008]				Time(s)	Normalized speed (percent)	Normalized torque (percent) 1
APPENDIX VI TO PART 1039—NONROAD 35	APPENDIX V TO PART 1039 [RESERVED]					4	13
COMPRESSION-IGNITION COMPOSITE 36 37 33 38 57 38 38 38 38 38 38 38 38 38	Approprie VI no Dana 1000 November					1	18
TRANSIENT CYCLE Normalized speed (percent)						1	21
TRANSIENT CYCLE Time(s) Normalized speed (percent) Normalized speed (percent) 1	COMPRESSION-IGNITION COMPOSITE						20 42
Time(s)	Transient Cycle						42
Time(s)						1	33
Time(s) Speed (percent) Corque (percent) 41 22 33 33 33 33 33 34 34	Time(s)	Normalized	Normalized				0
Company Comp						1	27
1 0 0 43 80 2 0 0 44 105 3 0 0 45 98 4 0 0 46 104 5 0 0 47 104 6 0 0 48 96 7 0 0 49 101 8 0 0 50 102 9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 54 102 12 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 57 47 16 0 0 55 89 14 0 0 56 82 15 0 0 57 47		(percent)	(percent) 1				43
2 0 0 44 105 3 0 0 45 98 4 0 0 46 104 5 0 0 47 104 6 0 0 48 96 7 0 0 49 101 8 0 0 50 102 9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 55 89 14 0 0 55 89 14 0 0 55 89 14 0 0 57 47 16 0 0 57 47 16 0 0 58 23 17 0 0 58 23 17 0	1	0					49
3 0 0 45 98 4 0 0 46 104 5 0 0 47 104 6 0 0 48 96 7 0 0 49 101 8 0 0 50 102 9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 54 102 12 0 0 55 89 14 0 0 55 82 15 0 0 57 47 16 0 0 58 23 17 0 0 59 1 18 0 0 60 1 19 0 0 60 1 20 0 <						1	47
4 0 0 46 104 5 0 0 47 104 6 0 0 48 96 7 0 0 49 101 8 0 0 50 102 9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 54 102 13 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 58 23 17 0 0 59 1 18 0 0 60 1 19 0 0 61 1 20 0 0 62 1 21 0 0 64 1 22 0 0 64 1 <	_					98	70
5 0 0 47 104 6 0 0 48 96 7 0 0 49 101 8 0 0 50 102 9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 55 89 14 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 58 23 17 0 0 58 23 17 0 0 59 1 18 0 0 60 1 19 0 0 61 1 20 0 0 62 1 21 0 <t< td=""><td></td><td>1</td><td></td><td>46</td><td></td><td>104</td><td>36</td></t<>		1		46		104	36
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9 0 0 51 102 10 0 0 52 102 11 0 0 53 102 12 0 0 54 102 13 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 59 1 17 0 0 59 1 18 0 0 60 1 19 0 0 60 1 20 0 0 62 1 21 0 0 63 1 22 0 0 64 1 23 0 0 65 1 24 1 3 66 0 25 1 3 67 1 26 1 3<		1		50		102	51
10 0 0 52 102 11 0 0 53 102 12 0 0 54 102 13 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 58 23 17 0 0 59 1 18 0 0 60 1 19 0 0 61 1 20 0 0 61 1 21 0 0 62 1 21 0 0 63 1 22 0 0 64 1 23 0 0 65 1 24 1 3 66 0 25 1 3 67 1 26 1 3<		1		51		102	50
11 0 0 53 102 12 0 0 54 102 13 0 0 55 89 14 0 0 56 82 15 0 0 57 47 16 0 0 58 23 17 0 0 59 1 18 0 0 60 1 19 0 0 61 1 20 0 0 62 1 21 0 0 63 1 22 0 0 64 1 23 0 0 64 1 23 0 0 65 1 24 1 3 66 0 25 1 3 67 1 26 1 3 68 9 27 1 3 <td></td> <td></td> <td></td> <td>52</td> <td></td> <td>102</td> <td>46</td>				52		102	46
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